UNITED STATES PATENT AND TRADEMARK OFFICE

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10/577,803	12/22/2006	Yusuke Suzuki	062488	6978

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EXAMINER
OLSEN, LIN B

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _December 22, 2006_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-16_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-16_ is/are rejected.

7)☒ Claim(s) _1, 2, 4, 9 and 14_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure

statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other

information submitted for consideration by the Office, and MPEP § 609.04(a) states,

"the list may not be incorporated into the specification but must be submitted in a

separate paper." Therefore, unless the references have been cited by the examiner on

form PTO-892, they have not been considered. This applies to the Japanese Laid-Open

Patent Publication No 2003-214860 referenced in the Background of the Invention

section of the specification.

The information disclosure statements (IDS) submitted on 4/28/2006 and

3/03/2008 were filed before the mailing date of the first action on the merits. The

submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the

information disclosure statement is being considered by the examiner.

Specification

The disclosure is objected to because of the following informalities: In

paragraphs 246 and 288 the specification uses the terminology "traffic means" and

"traffic facilities" while Fig. 3 refers to "transportation means". The examiner suggests

that traffic is the less accurate term.

Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informalities: In section (A1), a "route searching condition" is defined while in sections (A2) and (A3) the "route searching condition data "is referenced. The Examiner suggests that section (A1) be edited.

Claim 2 is objected to because of the following informalities: In section (A9), the claim recites "nearest the current location and the destination location". In paragraph 264, the specification recites "nearest current location or the destination location". The Examiner suggests that the claim should reflect the specification's wording.

Claim 4 is objected to because of the following informalities: Section (B8) purports to have a route as a component of the server. However in claim 1, element (B2) is a route producing means, so any route present in the server is transient, dependent on data sent from the terminal. The Examiner respectfully suggests that the Applicant is trying to provide more detail on the route created by the route producing means rather than claim a route as part of the server. Similar problems exist with claims 9 and 14.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 depends on claim 1 which defines an element (B4) "a map data storing means." Claim 5 claims the element (B11) "a map data storing means". It is unclear whether applicant is trying to recite a new element to the claimed invention or further specify the already claimed element from claim 1.

Claim 5 depends on claim 4 which defines an element (B9) "a guide point candidate setting means". Claim 5 claims the element (B13) ""a guide point candidate setting means". It is unclear whether applicant is trying to recite a new element to the claimed invention or further specify the already claimed element from claim 4.

Claim 5 depends on claim 4 which defines an element (B10) "a guide point setting means." Claim 5 claims the element (B15) "a guide point setting means". It is unclear whether applicant is trying to recite a new element to the claimed invention or further specify the already claimed element from claim 4.

In examining claim 5, the examiner will assume that the elements in claim 5 are further limitations to the elements in claims 1 and 4. Correction is required.

Claims 10 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10 and 15 contain the same construction noted above relative to claim 5 – elements (B11), (B13) and (B15) are defined and called the same as previously defined elements (B4), (B9), (B10) without clarification as to whether these are new definitions or limitations of the previously defined elements. The Examiner notes that claim 15 does not use the (B#) convention, but the language of the claim remains indefinite. The Examiner will make same assumptions for claims 10 and 15 when examining these claims. Correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims fail to define a statutory process. There does not appear to be sufficient structural and functional interrelationships between the computer program and other claimed elements of a computer or processor which permit the computer program's functionality to be realized. For the claim to be statutory there is a requirement that there be a functional interrelationship among the data and the computing processes performed when utilizing the data. A process consisting solely of mathematical operation does not manipulate appropriate subject matter and thus cannot constitute a statutory process. If Claim 16 were incorporated into the independent claims 10 and 13, there would be the requisite functional relationship.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent Pub. No. 2004/0044470 to Matsuoka et al. (Matsuoka) in view of U.S.

Patent Pub. No. 2002/0128768 to Nakano et al. (Nakano). Matsuoka is concerned with

terminal equipment that requests a route from a central server (center) and receives

map data and route data separately for display on the terminal. Nakano is also

concerned with a terminal unit that makes a route guidance request of a central sever

and receives back a route.

Regarding independent claims 1 and 8 and 13 which are related as system and

server incorporated in the system and a computer readable media containing the

instructions to cause a computer to function like the server: A route guidance system

comprising a mobile terminal provided with the following components (A1) through (A7)

and a server provided with the following components (B1) through (B6) (Claim 8 utilizes

component (B1') that is component (B1) rewritten for antecedent basis purposes only):

"(A1) searching condition input means composed of a searching condition entry

image display means that displays an image used to enter a route searching condition

consisting of a starting location and a destination location on an information display

screen, and a searching condition storing means for storing the route searching

condition established as a result of the input made to the route searching condition entry

image;" – Matsuoka Fig. 1 item 15 is an input device described in paragraphs 65 and 67

as an input device for inputting a departure point, destination etc. However, Matsuoka

describes only using the present position as the starting location, while Nakano, in the

beginning of the abstract specifies sending a starting point as well as a destination point

to the server. It would have been obvious to one of ordinary skill in the art at the time of

the invention to incorporate this feature of Nakano in Matsuoka's method in order to further the goal of reducing the amount of data sent between the sever and terminal, by pin pointing where the guidance is needed.

"(A2) searching condition transmitting means that transmits the route searching condition data to the server;" - Matsuoka at paragraph 67 discusses sending the route searching data to the center.

"(A3) searching result receiving means that receives route data representing a route from the starting location to the destination location from the server, and which is produced by the server according to the route searching condition data, and;" – Matsuoka paragraph 69 discusses the terminal receiving the recommended route from the center.

"(A4) map request transmitting means that transmits map data transmission requests for the transmission of map data to the server;" - Matsuoka paragraph 67 discusses the terminal sending a request for a map for the recommended route (step S2).

"(A5) map data receiving means that receives map data transmitted from the server;" - Matsuoka paragraph 69 discusses the terminal receiving the map data from the center.

"(A6) route image producing means that produces a route image based on route data and the possible range of display on the information display; and" – Matsuoka paragraph 69 discusses the route data being processed in the recommended route processor readying it for combination with the map image data.

"(A7) guide map image producing means that produces a route guidance map image by combining the route image and the map image obtained based on the map data, and" - Matsuoka Fig. 1 element 124 is the map information image combiner of the terminal discussed in paragraphs 65 and 69 as used to combine the map and route image data.

"(B1) searching condition receiving means that receives the data of route searching conditions transmitted from the mobile terminal;" - Matsuoka paragraph 67 discusses the center receiving the route searching data via the communications interface (21 in Fig. 1)

"(B2) route producing means that determines the route from the starting location to the destination location according to the route searching condition received, and produces the route data consisting of starting location data which indicates the position of the starting location, destination location data which indicates the position of the destination location, and position data pertaining to a guide point which is set in the course of the route, and notifies the user of guide information;" - Matsuoka paragraph 67 discusses Fig. 1 element 25 which is the route searching section of the center that determines the route from the parameters sent form the terminal. Matsuoka does not mention guide points, but Nakano sets guide points (abstract and Paragraph 83) to aid the verbal delivery of route directions. Since Matsuoka also provides voice guidance, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Nakano's guide point method to as a means of implementing the voice guidance referred to by Matsuoka.

"(B3) route data transmitting means that transmits the route data to the mobile terminal;"- Matsuoka paragraph 67 describes the center sending the recommended route to the terminal in transfer 2 of Fig. 2.

"(B4) map data storing means that stores map data;" – Matsuoka Fig. 1 item 22 is the center's map data storage area described in paragraph 66.

"(B5) map request receiving means that receives the map data transmission request transmitted from the mobile terminal; and" - Matsuoka's center communications area (21 in Fig. 1) receives the map request as detailed in Paragraph 67.

"(B6) map information transmitting means that transmits the map data corresponding to the map data transmission request to the mobile terminal." - Matsuoka's center communications area (21 in Fig. 1) transmits the map as detailed in Paragraph 67.

Regarding claim 2, which is dependent on claim 1, claim 6 which defines the terminal only of the system and Independent claim 11 which is for a computer readable media containing the instructions to cause a computer to function like a terminal device, wherein the mobile terminal is provided with the following components (A8) through (A11):

"(A8) current location measuring means that measures the current location of the mobile terminal;" - Matsuoka Fig. 1 item 14 shows the position detecting section discussed in Paragraph 65.

"(A9) guide execution point setting means that establishes the guide point

situated along the route nearest the current location and the destination location, or the

destination location as a guide execution point;

(A10) distance calculating means that calculates the distance between the

current location and the guide execution point based on data pertinent to the position of

the current location and the position of the guide execution point; and

(A11) guide information notifying means that notifies the user of the guide

information based on the distance between the current location and the guide execution

point." – Nakano at paragraphs 85-90 details how route guidance is carried out

including at an appropriate distance informing the driver of the road being traveled, what

intersection is the next guide point and the distance to that guide point.

Regarding claims 3, 7 and 12 which are dependent on claims 2, 6 and 11

respectively wherein the mobile terminal is provided with the following components

(A12) through (A14):

(A12) guide voice storing means that stores a guide voice for notifying the user

that the distance between the current location and the guide execution point has

reached a predetermined distance; - Matsuoka specifies that the directions to the driver

are presented either via display or via voice, (Fig. 2 Step 5) but does not detail

mechanisms of producing the voice. Nakano specifies that a synthesized voice is used

to pronounce the road names and directions (Paragraph 90). It would have been

obvious to one of ordinary skill in the art at the time of the invention to when

incorporating the guide points from Nakano into the Matsuoka system to use the proven

method of using them for guidance.

"(A13) distance notification discriminating means for determining whether the

distance between the current location and the guide execution point has reached a

predetermined distance; and

(A14) the guide information notifying means comprising guide voice reproducing

means that reproduces the guide voice as guide information if the predetermined

distance has been reached." – Nakano at paragraph 85 reports presenting the data to

the driver at the appropriate time.

Regarding claim 4, which is dependent on any one of claims 1 to 3, and claim 9

and 14 which are dependent on claims 8 and 13 respectively: wherein the server is

provided with the following components B(8) through B(10):

"(B8) a route with a starting location on one end and a destination location on the

other end, and is formed by connecting a plurality of lines and curves in succession;" –

Both Matsuoka and Nakano describe forming routes by connecting a plurality of road

segments in succession. Nakano at paragraphs 95 and 130 provides details.

"(B9) a guide point candidate setting means that sets guide point candidates

comprising the points of connection between the lines and curves forming the route; and

(B10) a guide point setting means that sets the guide point from among the guide

point candidates in accordance with a predetermined condition." – Nakano at paragraph

84 describes how every intersection of road segments could be a guide point but that

for efficiency, criteria such as change of name, or sufficient angle are used to select

guide points.

Regarding claims 5, 10 and 15, which are dependent on claims 4, 9 and 14

respectively, wherein the server is provided with the following components B(11)

through B(15):

"(B11) a map data storing means that stores road data that is formed by

connecting a plurality of lines and curves in succession along the center of a road on a

map, and comprises data pertinent to the location of the point of connection between

the lines and curves;" – Nakano paragraph 77 describes the map data storage unit (Fig.

1 23) that stores road data as names vectors with data about the end points.

"(B12) a route producing means that produces the route along the road;" -

Nakano paragraph 130 describes producing the route using specific search algorithms.

"(B13) a guide point candidate setting means that sets the connection point

arranged on the route as the guide point candidate;" – Nakano at paragraph 84

describes how every intersection f road segment could be a guide point but that for

efficiency, criteria such as change of name, or sufficient angle are used to select guide

points.

"(B14) a route turn angle determining means that determines for a specific guide

point candidate whether the route turn angle formed along the route between the

starting location guide point candidate situated on the starting location side of the

specific guide point candidate and the specific guide point candidate, and whether the

route turn angle formed along the route between the destination location guide point

candidate situated on the destination location side of the specific guide point candidate

and the specific guide point candidate, is equal to or less than a predetermined angle;

and" – Nakano paragraph 94 describes how the turn angle is determined when two road

segments intersect.

"(B15) a guide point setting means that sets the specific guide point candidate as

the guide point if the route turn angle is equal to or less than the predetermined angle."-

Nakano Paragraph 94 elaborates on an angle greater than 30º being a criterion for

selection of a guide point.

Regarding claim 16, a computer-readable recording medium that records the

program according to any one of claims 11 to 15. – This claim is rejected at least

because it depends on rejected claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. U.S. Patent No. 6,292,743 to Pu et al.; U.S. Patent No. 7,308,359

to Krull et al. for determining when to warn a driver; U.S. Patent Pub. No.

2001/0001847 to Hessing and U.S. Patent Pub. No. 2005/0055155 for a system with

terminal and server.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to LIN B. OLSEN whose telephone number is (571)272-

9754. The examiner can normally be reached on Mon - Fri, 8:30 -5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Thomas G. Black can be reached on 571-272-6956. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lin B Olsen/
Examiner, Art Unit 3661

     /Thomas G. Black/
     Supervisory Patent Examiner, Art Unit 3661